REMARKS

Claims 1-22 and 34-40 are rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter.

Claims 1-11, 30-40, 42, and 45-48 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Staiger, Phillip, "Tutorial – Amapi 4.1.5 Material Editor" Revised 1/1/2001, http://www.thebest3d.com/amapi/tutorials/materialeditor/ (**Staiger I**), in view of Staiger et al., "Tutorial – Getting started with Amapi 4.1", Revised 7/9/2003, http:www.thebest3d.com/amapi/tutorials/bottlesmile/index.html (**Staiger II**).

Claims 12-16, 18, and 20-22 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over **Staiger I** in view of **Staiger II** and further in view of U.S. Patent No. 5,461,709 (**Brown**).

Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over **Staiger I** in view of **Staiger II**, and further in view of **Brown** and U.S. Patent No. 6,822,635 (**Shahoian**).

Claims 23-28 and 41 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over **Staiger I** in view of **Staiger II**, and further in view of U.S. Patent No. 5,371,778 (**Yanof**).

Claim 29 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over **Staiger I** in view of **Staiger II**, and further in view of **Yanof** and **Brown**.

Applicants traverse the rejections. Applicants amend claim 10 to recite that the claimed three-dimensional haptic graphical user interface element is "rendered in three-dimensional object space" – this limitation is present in claim 1 and is supported in various locations throughout the specification as originally filed – no new matter is added.

Upon entry of this paper, claims 1-42 and 45-48 will still be pending.

Claims 1-22 and 34-40 are directed to statutory subject matter under 35 U.S.C. 101

Independent claims 1 and 10, along with dependent claims 2-9, 11-22, and 34-40, stand as rejected under 35 U.S.C. 101. Without acquiescing to the rejections, Applicants amend claim 10 to recite (as does claim 1) that the three-dimensional haptic graphical user interface element is "rendered in three-dimensional object space."

The Office Action argues that the claims recite software *per se* and therefore do not fall within a statutory category of invention. Applicant respectfully traverses.

A user interface element "rendered in three-dimensional object space" is clearly not software per se. Lines of code are not themselves "rendered in three-dimensional object space." The user-interface element of claims 1-22 and 34-40 is a device within the meaning of 35 U.S.C. 101. Applicants request the rejections under 35 U.S.C. 101 be reconsidered and withdrawn.

None of the art teaches a three-dimensional graphical user interface element operable to adjust mapped texture within an *arbitrarily shaped user-defined region* of a surface of a virtual object, as recited in each of independent claims 1, 10, 23, and 30.

The Office Action withdrew the previous rejections based upon **Staiger I** and **Staiger II**, but has presented new rejections in view of a new interpretation of these references (see pages 19-21 of the 1/11/08 Office Action).

The Office Action states, "The Office notes that Staiger II does not explicitly disclose the surface of the arbitrarily shaped user-defined region contiguous to the rest of the bottle but has found further evidence in the disclosure of Staiger I that teaches such a limitation. In particular, Staiger discloses, in the tutorial, performing processing upon the bottom of the soda can that entails adding material to just this part of the can (see pages 4-5). ... Although Staiger does state that such an object of the soda can, the bottom, is a separate part than the rest of the can (see bottom of page 4), the Office interprets that this user-defined part is contiguous to the rest of the can ..." [emphasis added].

Applicants respectfully traverse. By reciting "arbitrarily-shaped user-defined region," the claims of the present application require a method (or user interface element) *capable* of adjusting texture *within an arbitrary user-defined shape*, including those shapes described in the specification. The bottom of the soda can in **Staiger I** is not an arbitrarily-shaped user-defined region of the surface of the virtual object – it is an entire face of the virtual object having a simple geometry.

Staiger I and **Staiger II** are limited to simple geometric projection methods and are incapable of adjusting texture within an arbitrarily shaped user-defined region of the surface of a virtual object. Under Staiger, "[t]the image gets displayed on the can, in a spherical mapping projection by default." (**Staiger I**, p. 12). The user must select a mapping that is closest to the geometry of the 3D object. (*See* **Staiger I**, p. 12 (requesting the user to "[c]lick the 'Mapping' menu and [to] select 'Cylindrical'" because "the geometry of the can is closest to a cylinder")). Finally, when the user selects a mapping, he or she cannot arbitrarily select a region. Instead, a predetermined set of hotspots is presented to the user. (*See* **Staiger I**, p. 12 (noting that a "new set of hot-spots *appear[s]* in the preview area" and when the user "move[s] the cursor over certain areas of the preview, different types of hotspots *appear*.")) (emphasis added). Thus, under Staiger, the user can only modify a texture within a region identified by predefined, preselected hotspots, that are associated with only a limited set of mappings such as spherical and cylindrical.

Furthermore, each of the independent claims of the present application indicates that the three-dimensional graphical user interface element is operable to adjust the mapped texture within the arbitrarily shaped user-defined region of the surface without affecting a contiguous portion of the surface outside the user-defined region. The independent claims also indicate that the user-defined region is less than the entire surface of the three-dimensional virtual object. None of the cited art (**Staiger I**, **Staiger II**, **Brown**, **Shahoian**, and **Yanof**), alone or in combination, teaches or suggests a 3D GUI with these attributes.

For example, Figures 21A-C, 23A-C, and 26A-C, reproduced below, demonstrate the 3D GUI of the instant application, operable to adjust an arbitrarily-shaped user-defined region of the surface of a 3D virtual object without affecting the rest of the surface outside the region. Figures 21A-C demonstrate translating the texture within the arbitrarily-shaped user-defined region using the 3D GUI; Figures 23A-C demonstrate scaling the texture within the arbitrarily-shaped user-defined region using the 3D GUI, and Figures 26A-C demonstrate rotating the texture within the arbitrarily-shaped user-defined region using the 3D GUI.

Translating

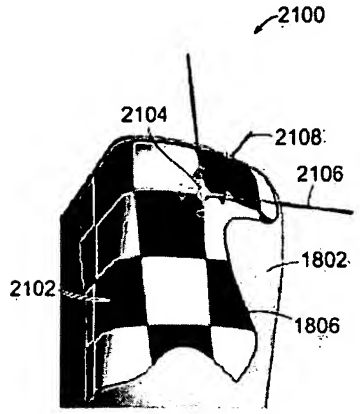

FIG. 21A

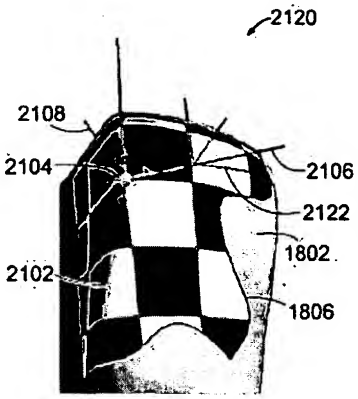

FIG. 21B

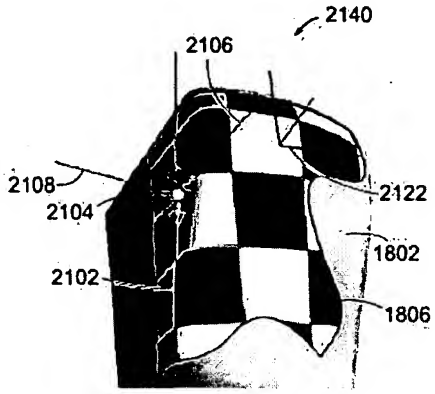

FIG. 21C

Scaling

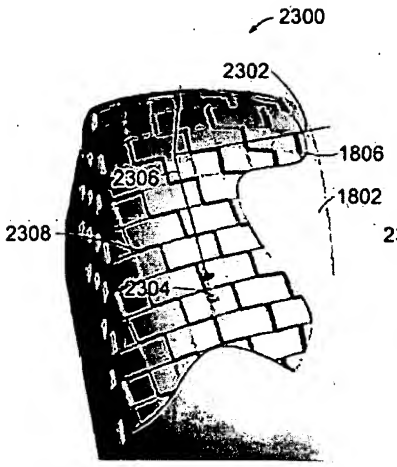

FIG. 23A

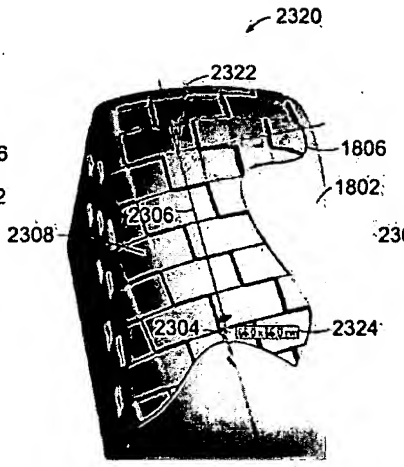

FIG. 23B

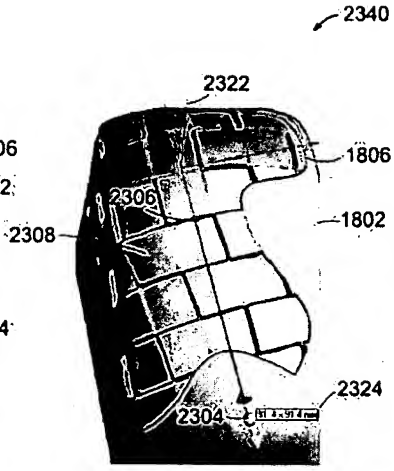

FIG. 23C

Rotating

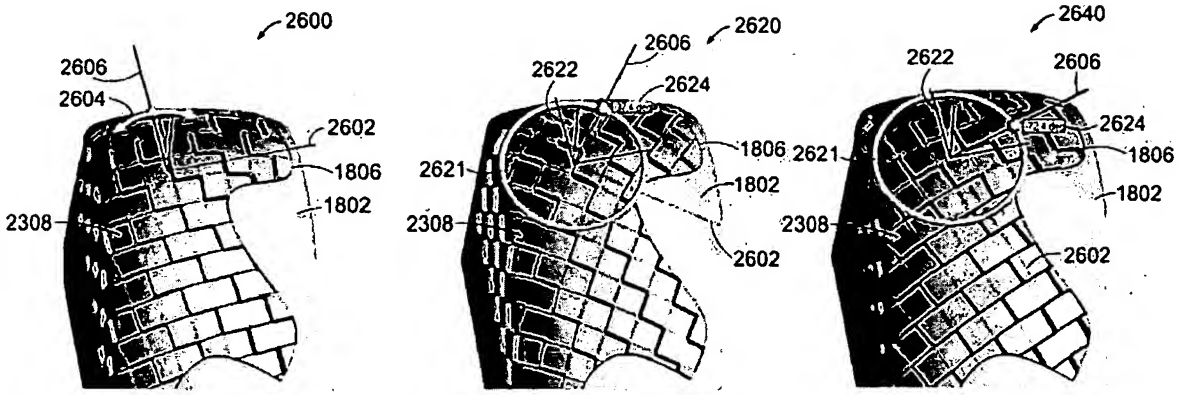

FIG. 26A FIG. 26B FIG. 26C

Claims 1, 10, 23, and 30 are patentable in light of the prior art, at least for the reasons presented here, and Applicant respectfully requests reconsideration and withdrawal of any remaining rejections of these claims. Dependent claims 2-9, 11-22, 24-29, 31-42, and 45-48 depend directly or indirectly from one of these independent claims and are therefore also patentable in light of all the cited art, at least on this basis. Applicant respectfully requests reconsideration and withdrawal of all remaining rejections.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of all rejections, and allowance of claims 1-42 and 45-48 in due course. The Examiner is hereby cordially invited to contact Applicant's undersigned representative by telephone at the number listed below to discuss any outstanding issues.

Respectfully submitted,

Date: July 11, 2008
Reg. No. 53,002

/William R. Haulbrook/
William R. Haulbrook, Ph.D.
Attorney for Applicant
Goodwin Procter LLP
Exchange Place
Boston, Massachusetts 02109
Customer No. 051414

Tel. No.: (617) 570-1013
Fax No.: (617) 523-1231

1914435